Amana®
Heating ▪ Air Conditioning
A higher standard of comfort

GUCA
High Efficiency
Gas Fired Warm Air Furnace

Specification Sheet

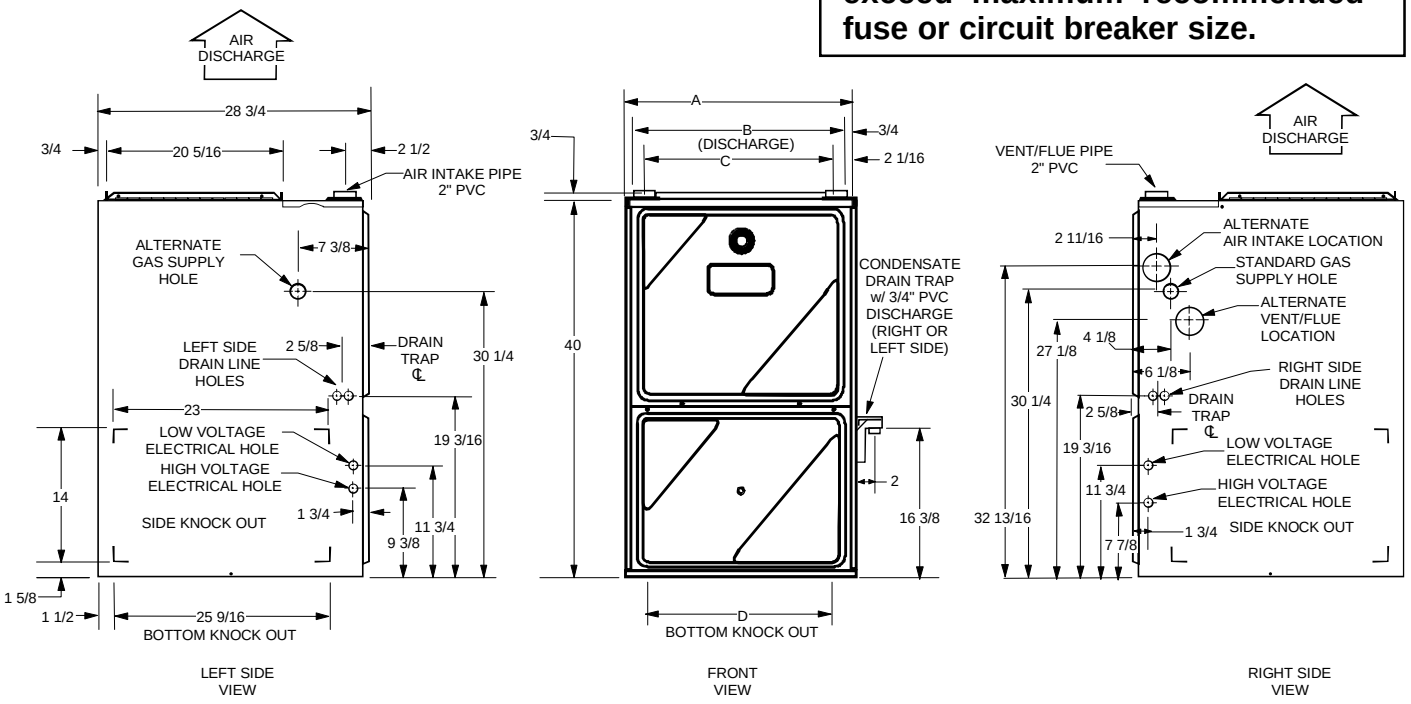
Affix this Specification Sheet, Installation Instructions and User Information manual adjacent to the unit.

Model Number	Input (Btu/hr)	Output (Btu/hr)	AFUE	Temp. Rise Range (F)	Number of Burners	Minimum Circuit Ampacity[1] (Amps)	Maximum Overcurrent Protection[2] (Amps)	Circulator Blower			Tons AC at 0.5" ESP	Pressure[3] Switch Settings (Inches W.C.)		Shipping Weight (lbs)
								Size (D" x W")	HP	Number of Speeds		ID Blwr	Front Cover	
GUCA045AX30	46,000	42,200	92.0	35 - 65	2	9.0	15.0	11 X 6	1/3	4	1.5 - 3.0	-0.37	-0.37	131
GUCA070AX30	69,000	63,800	92.0	35 - 65	3	8.9	15.0	11 X 7	1/2	4	2.0 - 3.5	-0.37	-0.37	144
GUCA070AX40	69,000	63,300	92.0	35 - 65	3	8.9	15.0	11 X 9	1/2	4	2.5 - 4.0	-0.37	-0.37	152
GUCA090AX40	92,000	86,000	92.0	35 - 65	4	8.9	15.0	11 X 9	1/2	4	2.5 - 4.0	-0.37	-0.37	166
GUCA090AX50	92,000	85,100	92.0	35 - 65	4	13.8	15.0	11 X 9	3/4	4	3.0 - 5.0	-0.37	-0.37	175
GUCA115AX50	115,000	105,900	92.0	35 - 65	5	14.9	15.0	11 X 10	3/4	4	3.0 - 5.0	-0.37	-0.37	187

[1] Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower Amps.
[2] Maximum Overcurrent Protection refers to maximum recommended fuse or circuit breaker size.
[3] As shipped for installations below 7,000 feet.

WARNING
To avoid death, personal injury or property damage due to fire, do not exceed maximum recommended fuse or circuit breaker size.

Dimensions (Inches)



Cabinet Size	Units	A	B	C	D
Small	045__30 070__30	16-1/2	15	12-3/8	12-5/8
Medium	070__40 090__40	20-1/2	19	16-3/8	14-5/8
Large	090__50 115__50	24-1/2	23	20-3/8	18-5/8

All dimensions are in inches.

Due to continuous engineering design and development, the information in this spec sheet is subject to change without notice.

GUCA Blower Performance

Model (Heating Speed as Shipped)	Motor Speed	Tons AC at 0.5" ESP	External Static Pressure (Inches of Water Column)												
			0.1		0.2		0.3		0.4		0.5		0.6	0.7	0.8
			CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	CFM	CFM
	HIGH	3.0	1322	---	1298	---	1278	---	1243	---	1196	---	1137	1074	1000
GUCA045AX30	MED-HI	2.5	1131	35	1114	35	1097	36	1068	37	1019	39	968	907	827
(MED-LO)	MED-LO	2.0	903	44	896	44	876	45	844	47	807	49	764	706	652
	LOW	1.5	702	56	680	58	657	60	624	63	584	---	542	485	423
	HIGH	3.5	1590	37	1550	38	1505	39	1454	41	1406	42	1343	1266	1194
GUCA070AX30	MED-HI	3.0	1489	40	1450	41	1415	42	1370	43	1324	45	1261	1205	1130
(MED-LO)	MED-LO	2.5	1251	47	1226	48	1205	49	1173	50	1135	52	1096	1037	975
	LOW	2.0	1001	59	988	60	969	61	956	62	929	64	902	859	807
	HIGH	4.0	1861	---	1823	---	1778	---	1721	---	1643	36	1581	1500	1387
GUCA070AX40	MED-HI	3.5	1620	37	1597	37	1565	38	1516	39	1462	41	1410	1318	1235
(MED-LO)	MED-LO	3.0	1387	43	1369	43	1313	45	1284	46	1224	48	1167	1095	1024
	LOW	2.5	1193	50	1162	51	1118	53	1072	55	1012	59	961	894	836
	HIGH	4.0	1821	43	1768	45	1699	46	1624	49	1544	51	1439	1354	1227
GUCA090AX40	MED-HI	3.5	1624	49	1561	51	1520	52	1461	54	1381	57	1297	1217	1109
(HIGH)	MED-LO	3.0	1395	57	1363	58	1311	60	1258	63	1201	66	1120	1045	957
	LOW	2.5	1212	65	1164	---	1126	---	1080	---	1014	---	957	882	815
	HIGH	5.0	2375	---	2323	---	2282	35	2217	36	2128	37	2056	1956	1857
GUCA090AX50	MED-HI	4.5	1752	45	1741	45	1729	46	1682	47	1640	48	1591	1534	1454
(MED-HI)	MED-LO	3.5	1504	53	1487	53	1469	54	1443	55	1412	56	1380	1318	1228
	LOW	3.0	1274	62	1258	63	1253	63	1222	65	1201	---	1147	1072	972
	HIGH	5.0	2359	42	2298	43	2208	45	2117	47	2029	49	1914	1783	1678
GUCA115AX50	MED-HI	4.5	1849	53	1808	55	1757	56	1722	57	1651	60	1595	1507	1403
(HIGH)	MED-LO	3.5	1575	63	1556	63	1527	65	1497	---	1456	---	1370	1290	1205
	LOW	3.0	1370	---	1348	---	1313	---	1278	---	1254	---	1180	1114	1029

NOTES:

- All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- This chart is for furnaces installed at 0 - 4000 feet. At higher altitudes, a properly derated unit will have the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- The shaded area ( )indicates ranges in excess of maximum external static pressure allowable when heating. For satisfactory operation, external static pressure should not exceed 0.5” W.C. The data for 0.6” W.C. to 0.8” W.C. is shown for air conditioning purposes only.
- The dashed (-----) areas indicate a temperature rise not recommended for this model.
- The installation must be adjusted to obtain a temperature rise within the range listed on the furnace nameplate.

Minimum Clearances

WARNING

To avoid death, personal injury or property damage due to fire, clearances to combustible surfaces listed as below must be observed.

Service Accessibility and Unit Connections

- 36 inches front clearance is required for servicing or cleaning.
- Unit connections (electrical, flue, and drain) may necessitate greater clearances than the minimum clearances listed below.

NOTE: In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS (INCHES)						
POSITION*	SIDES	FRONT	REAR	TOP	BOTTOM	FLUE
Upflow	0	3	0	1	C	0
Horizontal	6	3	0	6	C	0

* = All positioning is determined as installed unit is viewed from the front.
C = If placed on combustible floor, floor MUST be wood ONLY.

Standard Altitude Installations

For installations above 7000 feet, please refer to your Amana distributor for required kit(s).

Gas	Altitude	Kit	Orifice	Manifold Pressure	Pressure Switch Change
Natural	0-7000	None	#43	3.5" w.c.	None
Propane	0-7000	LPTK09	#55	10.0" w.c.	None

Note: In Canada, gas furnaces are certified only to 4500 feet.

Flame Sensor

Flame sensor output is 1 to 4 microamps at 115 volts.

Filters

FIlters must be used with this furnace. Filters do not ship with this furnace but must be provided by the installer. Filters must comply with UL900 or CAN/ULCS111 standards. If the furnace is installed without filters, the warranty will be voided.

For air delivery of less than 1800 CFM; use one side return or bottom return ductwork connection.

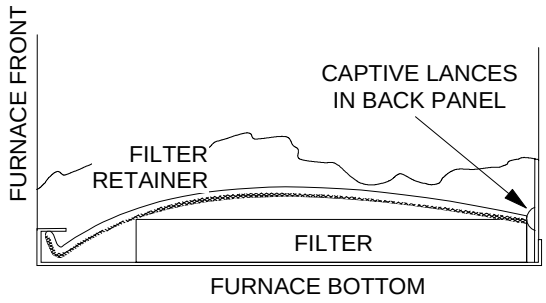
For air delivery of 1800 CFM or higher: use two side return or one side and one bottom return connection.

Side Return Filters Minimum Recommended Size For Maximum CFM						
Model (Input___Air Flow_Max CFM)	Disposable*			Permanent*		
	Qty	Nom. Size	Area (in²)	Qty	Nom. Size	Area (in²)
045_30_1200	1	24x24x1	576	1	16x25x1	400
070_30_1400	1	25x30x1	750	1	16x25x1	400
070_40_1600	1	25x30x1	800	1	16x25x1	400
090_40_1600	1	25x30x1	800	1	16x25x1	400
090_50_2000	2	20x25x1	1000	2	16x25x1	800
115_50_2000	2	20x25x1	1000	2	16x25x1	800

- Maximum Filter Face Velocities:
  Disposable-300 ft/min
  Permanent-600 ft/min

Bottom Return Filter Minimum Recommended Size For Maximum CFM			
Model (Input___Air Flow__Max CFM)	Permanent		
	Qty	Nominal Size	Area (in²)
045__30__1200	1	14x25x1	350
070__30__1400	1	14x25x1	350
070__40__1600	1	16x25x1	400
090__40__1600	1	16x25x1	400
090__50__2000	1	20x25x1	500
115__50__2000	1	20x25x1	500

The figure below shows how the filter is retained over the bottom return air opening.



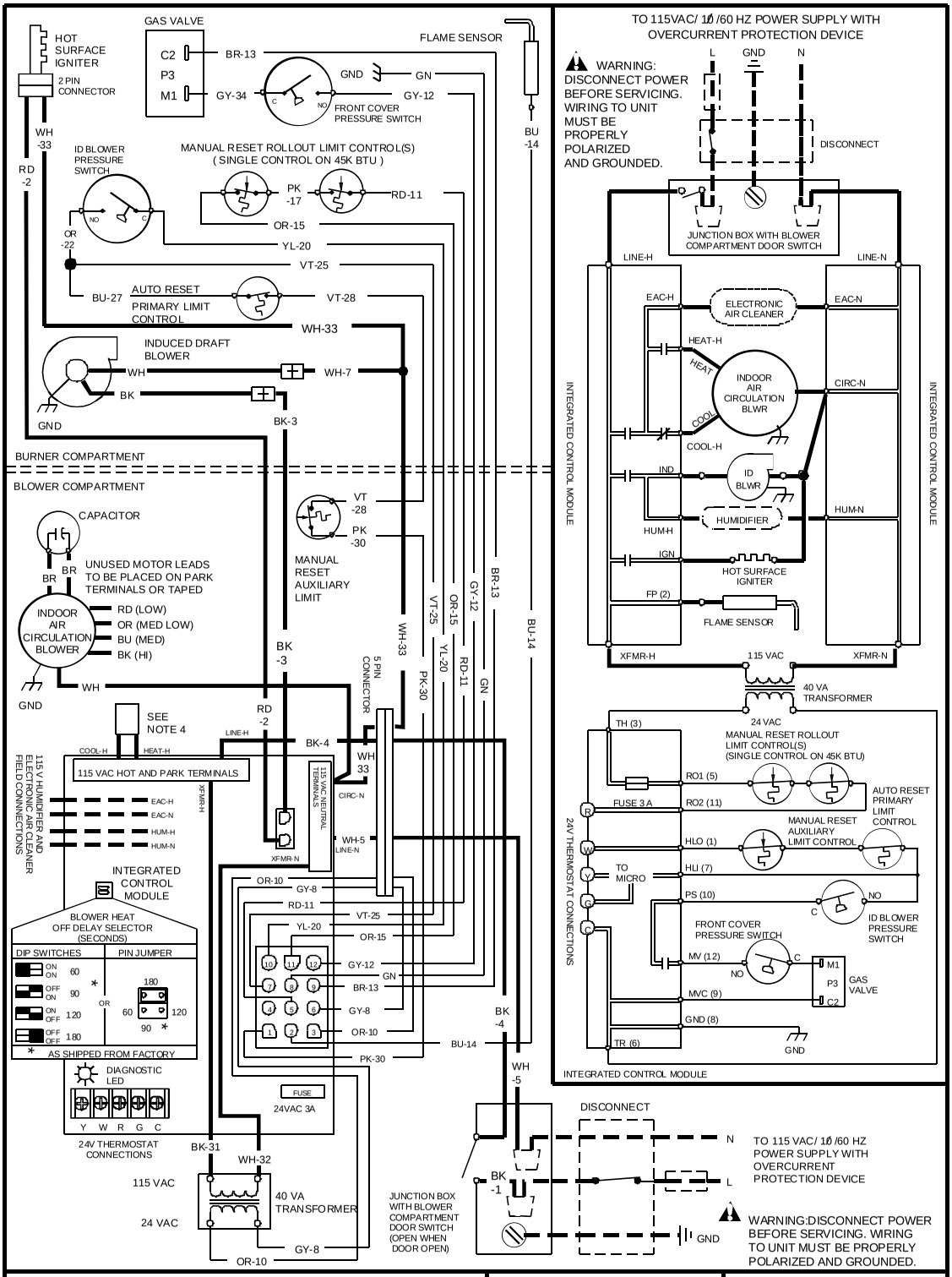
Cut Away Side View of Bottom Return Wire Filter Retainer

IMPORTANT NOTES:

1. All furnaces have a redundant gas valve and blower door interlock switch.
2. All furnaces are manufactured for use on 115 VAC, 60 Hz, single phase electrical supply.
3. I**MPORTANT:** While the data is presented as a guide, it is required to properly size fuses and wires and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.
4. Performance figures are based on Department of Energy information and requirements under continuous operating conditions. Performance will vary with weather conditions and use.
5. Drain connections must conform to local codes.

⚠ WARNING

To prevent death, personal injury or property damage due to electrical shock, disconnect electrical power to this furnace before servicing or performing maintenance.


GAS VALVE
HOT SURFACE IGNITER
2 PIN CONNECTOR
FLAME SENSOR
FRONT COVER PRESSURE SWITCH
ID BLOWER PRESSURE SWITCH
MANUAL RESET ROLLOUT LIMIT CONTROL(S) (SINGLE CONTROL ON 45K BTU)
AUTO RESET PRIMARY LIMIT CONTROL
INDUCED DRAFT BLOWER
BURNER COMPARTMENT
BLOWER COMPARTMENT
CAPACITOR
UNUSED MOTOR LEADS TO BE PLACED ON PARK TERMINALS OR TAPED
INDOOR AIR CIRCULATION BLOWER
RD (LOW)
OR (MED LOW)
BU (MED)
BK (HI)
MANUAL RESET AUXILIARY LIMIT
5 PIN CONNECTOR
SEE NOTE 4
115 VAC HOT AND PARK TERMINALS
115 V HUMIDIFIER AND ELECTRONIC AIR CLEANER FIELD CONNECTIONS
INTEGRATED CONTROL MODULE
BLOWER HEAT OFF DELAY SELECTOR (SECONDS)
DIP SWITCHES
PIN JUMPER
AS SHIPPED FROM FACTORY
DIAGNOSTIC LED
24V THERMOSTAT CONNECTIONS
FUSE 24VAC 3A
115 VAC
24 VAC
40 VA TRANSFORMER
JUNCTION BOX WITH BLOWER COMPARTMENT DOOR SWITCH (OPEN WHEN DOOR OPEN)
DISCONNECT
TO 115VAC/ 1Ø /60 HZ POWER SUPPLY WITH OVERCURRENT PROTECTION DEVICE
WARNING: DISCONNECT POWER BEFORE SERVICING. WIRING TO UNIT MUST BE PROPERLY POLARIZED AND GROUNDED.
JUNCTION BOX WITH BLOWER COMPARTMENT DOOR SWITCH
ELECTRONIC AIR CLEANER
INDOOR AIR CIRCULATION BLWR
ID BLWR
HUMIDIFIER
HOT SURFACE IGNITER
FLAME SENSOR
40 VA TRANSFORMER
MANUAL RESET ROLLOUT LIMIT CONTROL(S) (SINGLE CONTROL ON 45K BTU)
AUTO RESET PRIMARY LIMIT CONTROL
MANUAL RESET AUXILIARY LIMIT CONTROL
TO MICRO
FRONT COVER PRESSURE SWITCH
ID BLOWER PRESSURE SWITCH
GAS VALVE
24V THERMOSTAT CONNECTIONS
INTEGRATED CONTROL MODULE

- 0 STEADY ON = REPLACE CONTROL
- 1 1 FLASH = SYSTEM LOCKOUT (RETRIES/RECYCLES EXCEEDED)
- 2 2 FLASHES = PRESSURE SWITCH STUCK CLOSED
- 3 3 FLASHES = PRESSURE SWITCH STUCK OPEN
- 4 4 FLASHES = OPEN PRIMARY OR AUXILIARY LIMIT
- 5 5 FLASHES = OPEN ROLLOUT LIMIT
- 6 6 FLASHES = 115V AC POWER REVERSED
- 7 7 FLASHES = LOW FLAME SENSE SIGNAL
- C CONTINUOUS FLASHES = FLAME WITH NO CALL FOR HEAT

LOW VOLTAGE (24V)	EQUIPMENT GND
LOW VOLTAGE FIELD	FIELD GND
HI VOLTAGE (115V)	FIELD SPLICE
HI VOLTAGE FIELD	SWITCH (TEMP.)
JUNCTION	IGNITER
TERMINAL	SWITCH (PRESS.)
INTERNAL TO INTEGRATED CONTROL	OVERCURRENT PROT. DEVICE

COLOR CODES:

YL	YELLOW	PK	PINK
OR	ORANGE	BR	BROWN
VT	VIOLET	WH	WHITE
GN	GREEN	BU	BLUE
BK	BLACK	GY	GRAY
		RD	RED

20211201 REV.02

NOTES:
1. SET HEAT ANTICIPATOR ON ROOM THERMOSTAT AT 0.7 AMPS.
2. MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.
3. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE FURNACE MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105C. USE COPPER CONDUCTORS ONLY.
4. IF HEATING AND COOLING BLOWER SPEEDS ARE NOT THE SAME DISCARD JUMPER BEFORE CONNECTING BLOWER LEADS. UNUSED BLOWER LEADS MUST BE PLACED ON "PARK" TERMINALS OF INTEGRATED CONTROL OR TAPED.
5. UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO N.E.C. AND LOCAL CODES.